

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 19.01.2021

Version number 1

Revision: 19.01.2021

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

**1.1 Product identifier****Product name: Tellurium Standard: 10000 µg/mL Te in 30% HCl [500ml bottle]****Part number: 5190-8214****1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

**Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**Agilent Technologies Manufacturing GmbH & Co. KG  
Hewlett-Packard-Str. 8  
76337 Waldbronn  
Germany

Tel:0800 603 1000

**Further information obtainable from:** e-mail: [pdl-msds\\_author@agilent.com](mailto:pdl-msds_author@agilent.com)**1.4 Emergency telephone number:** CHEMTREC®: +(44)-870-8200418

### SECTION 2: Hazards identification

**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Repr. 1A H360F May damage fertility.



GHS05 corrosion

Met. Corr.1 H290 May be corrosive to metals.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

**Hazard pictograms**

GHS05



GHS07



GHS08

**Signal word** Danger

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- **Hazard-determining components of labelling:**

Hydrochloric acid  
tellurium

- **Hazard statements**

H290 May be corrosive to metals.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H360F May damage fertility.  
H335 May cause respiratory irritation.

- **Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P284 [In case of inadequate ventilation] wear respiratory protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P321 Specific treatment (see on this label).  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**

Restricted to professional users.

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**

- **Description:** Aqueous solution.

- **Dangerous components:**

CAS: 7647-01-0 EINECS: 231-595-7 RTECS: MW 9620000	Hydrochloric acid --- ☠ Skin Corr. 1B, H314; Eye Dam. 1, H318; ⚠ STOT SE 3, H335	10-25%
CAS: 13494-80-9 EINECS: 236-813-4 RTECS: WY2625000	tellurium --- ☠ Acute Tox. 3, H301; ☠ Resp. Sens. 1B, H334; Repr. 1A, H360F; ⚠ Acute Tox. 4, H332	<2%

- **Additional information:**

The concentration of the acid stated in this SDS is calculated as an absolute mass concentration (%w/v). This is less than the acid concentration stated on the product label and COA, which reflects a percent value of the commercially available concentrated aqueous form of the acid.

For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **General information:** Immediately remove any clothing soiled by the product.

- **After inhalation:** In case of unconsciousness place patient in recovery position for transport.

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- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Rinse mouth. Do not induce vomiting.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable for surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralising agent.  
Dispose of contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Store in cool, dry place in tightly closed receptacles.  
Open and handle receptacle with care.  
Ensure good ventilation/extraction at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Please refer to the manufacturer's certificate for specific storage and transport temperature conditions.  
Store only in the original receptacle unless other advice is given on the CoA.

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- Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
  - **Further information about storage conditions:** Keep container tightly sealed.
  - **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.

- **Ingredients with limit values that require monitoring at the workplace:**

**CAS: 7647-01-0 Hydrochloric acid**

WEL	Short-term value: 8 mg/m <sup>3</sup> , 5 ppm Long-term value: 2 mg/m <sup>3</sup> , 1 ppm (gas and aerosol mists)
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**CAS: 13494-80-9 tellurium**

WEL	Long-term value: 0.1 mg/m <sup>3</sup> as Te
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- **Additional information:** Lists used were valid at the time of SDS preparation.

- **8.2 Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374



Protective gloves

- **Material of gloves**

PVC gloves

Neoprene gloves

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· **Eye protection:**

Tightly sealed goggles

### SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

**Form:** Liquid  
**Colour:** Colourless

· **Odour:** Odourless· **Odour threshold:** Not determined.· **pH-value:** <2· **Change in condition****Melting point/freezing point:** Not determined.**Initial boiling point and boiling range:** 100 °C· **Flash point:** Not applicable.· **Flammability (solid, gas):** Not determined.· **Ignition temperature:** Not determined· **Decomposition temperature:** Not determined.· **Auto-ignition temperature:** Product is not selfigniting.· **Explosive properties:** Not determined.· **Explosion limits:****Lower:** Not determined.**Upper:** Not determined.· **Vapour pressure at 20 °C:** 23 hPa· **Density at 20 °C:** 1.06915 g/cm<sup>3</sup>· **Relative density** Not determined.· **Vapour density** Not determined.· **Evaporation rate** Not determined.· **Solubility in / Miscibility with water:**

Fully miscible.

· **Partition coefficient: n-octanol/water:** Not determined.· **Viscosity:****Dynamic:** Not determined.**Kinematic:** Not determined.

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**· 9.2 Other information**

No further relevant information available.

### SECTION 10: Stability and reactivity

**· 10.1 Reactivity**

Stable under normal conditions.

No further relevant information available.

**· 10.2 Chemical stability** Stable under normal conditions.

**· Thermal decomposition / conditions to be avoided:**

Formation of toxic gases is possible during heating or in case of fire.

**· 10.3 Possibility of hazardous reactions** No dangerous reactions known.

**· 10.4 Conditions to avoid** Heat.

**· 10.5 Incompatible materials:**

Strong oxidizing agents.

Metals.

**· 10.6 Hazardous decomposition products:**

Formation of toxic gases is possible during heating or in case of fire.

### SECTION 11: Toxicological information

**· 11.1 Information on toxicological effects**

**· Acute toxicity** Based on available data, the classification criteria are not met.

**· LD/LC50 values relevant for classification:**

**CAS: 13494-80-9 tellurium**

Oral	LD50	83 mg/kg (rat)
Inhalative	LC50/4 h	>2.42 mg/l (rat)

**· Primary irritant effect:**

**· Skin corrosion/irritation**

Causes skin irritation.

**· Serious eye damage/irritation**

Causes serious eye irritation.

**· Respiratory or skin sensitisation**

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**· Additional toxicological information:**

**· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Repr. 1A

**· Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**· Carcinogenicity** Based on available data, the classification criteria are not met.

**· Reproductive toxicity**

May damage fertility.

**· STOT-single exposure**

May cause respiratory irritation.

**· STOT-repeated exposure** Based on available data, the classification criteria are not met.

**· Aspiration hazard** Based on available data, the classification criteria are not met.

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### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
 Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
 Do not allow undiluted product to reach ground water, water course or sewage system.  
 Must not reach sewage water or drainage ditch undiluted or unneutralised.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **European waste catalogue**  
 Waste disposal key numbers from EWC have to be assigned depending on origin and processing.
- **Uncleaned packaging:**
- **Recommendation:** Dispose of in accordance with national regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

- |                          |                                 |
|--------------------------|---------------------------------|
| · <b>14.1 UN-Number</b>  | UN1789                          |
| · <b>ADR, IMDG, IATA</b> | 1789 HYDROCHLORIC ACID solution |
| · <b>ADR</b>             | HYDROCHLORIC ACID solution      |
| · <b>IMDG, IATA</b>      |                                 |

- **14.3 Transport hazard class(es)**
- **ADR, IMDG, IATA**



- |                |                         |
|----------------|-------------------------|
| · <b>Class</b> | 8 Corrosive substances. |
| · <b>Label</b> | 8                       |

- |                             |    |
|-----------------------------|----|
| · <b>14.4 Packing group</b> | II |
| · <b>ADR, IMDG, IATA</b>    |    |

- |                                      |                 |
|--------------------------------------|-----------------|
| · <b>14.5 Environmental hazards:</b> | Not applicable. |
|--------------------------------------|-----------------|

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<ul style="list-style-type: none"> <li>· <b>14.6 Special precautions for user</b></li> <li>· <b>Hazard identification number (Kemler code):</b></li> <li>· <b>EMS Number:</b></li> <li>· <b>Segregation groups</b></li> <li>· <b>Stowage Category</b></li> </ul>	<p>Warning: Corrosive substances.</p> <p>80</p> <p>F-A,S-B</p> <p>Strong acids</p> <p>C</p>
<ul style="list-style-type: none"> <li>· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b></li> </ul>	<p>Not applicable.</p>
<ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> </ul>	
<ul style="list-style-type: none"> <li>· <b>ADR</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> <li>· <b>Transport category</b></li> <li>· <b>Tunnel restriction code</b></li> </ul>	<p>1L</p> <p>Code: E2</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 500 ml</p> <p>2</p> <p>E</p>
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	<p>UN 1789 HYDROCHLORIC ACID SOLUTION, 8, II</p>

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Met. Corr. 1: Corrosive to metals – Category 1

Acute Tox. 3: Acute toxicity - oral – Category 3

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*Acute Tox. 4: Acute toxicity - inhalation – Category 4*  
*Skin Corr. 1B: Skin corrosion/irritation – Category 1B*  
*Skin Irrit. 2: Skin corrosion/irritation – Category 2*  
*Eye Dam. 1: Serious eye damage/eye irritation – Category 1*  
*Eye Irrit. 2: Serious eye damage/eye irritation – Category 2*  
*Resp. Sens. 1: Respiratory sensitisation – Category 1*  
*Resp. Sens. 1B: Respiratory sensitisation – Category 1B*  
*Repr. 1A: Reproductive toxicity – Category 1A*  
*STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

**· Sources**

*Tables 3.1 and 3.2 from Annex 6 of EC 1272/2008, EC 1907/2006, EH40/2005 as amended 2011, Registry of Toxic Effects of Chemical Substances (RTECS), The Dictionary of Substances and their Effects, 1st Edition, IUCLID.*

**· Data compared to the previous version altered. All sections have been updated.**

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